REMARKS

Claims 6-10 and 13-17 are pending.

The amendment to claim 6 is supported by the specification at page 3, lines 19 and 24, page 5, line 8, page 12, line 6 and page 19, line 27. The amendment to claims 13-17 is supported by the specification at page 8, line 5, page 9, line 24 and page 11, line 11. Applicant submits that the amendment to claim 6 fails to narrow the scope of the amended claim recitation because the specification discloses that the "ferromagnetic ZnO-type compound" of the invention has a single-crystalline structure (e.g. see page 5, lines 8-10), so a person skilled in the art would have understood that the "ferromagnetic ZnO-type compound" recited in the pre-amendment claim 6 has a single-crystalline structure ("the pre-amendment claim 6" refers to claim 6 before the instant amendment).

Claims Withdrawn from Consideration

The pre-amendment claims 13-17 were withdrawn from consideration because the Examiner asserted that the pre-amendment claims 6-10 and 13-17 were patentably distinct and that an office action on the merits had already been rendered for claims 6-10. Applicants respectfully traverse the withdrawal of the pre-amendment claims 13-17 from consideration.

The Examiner asserted that the pre-amendment claims 6-10 and the pre-amendment claims 13-17 were patentably distinct because the method of adjusting the ferromagnetic characteristics of a ZnO-type compound "in the form of a single crystal"

according to the pre-amendment claims 13-17 was unrelated to the method of adjusting the ferromagnetic characteristics of a ZnO-type compound according to the pre-amendment claims 6-10 since these methods are **not usable together and they have different effects**. Applicants respectfully disagree.

The Examiner interpreted claims 13-17 before the present amendment to mean a ZnO-type compound in the form of a single crystal. This interpretation is erroneous because the method of the pre-amendment claims 13-17 was for adjusting the ferromagnetic characteristics of a ferromagnetic ZnO-type compound having a **single-crystalline** structure. The "ferromagnetic ZnO-type compound having a single-crystalline structure" as recited in the pre-amendment claims 13-17 should be interpreted to mean that the ferromagentic ZnO-type compound is in the form of one or more crystals having one crystalline structure, e.g. wurtzite crystalline structure disclosed in page 5, line 23, of the specification (as opposed to more than one crystalline structure), not necessarily only in the form of a single crystal as alleged by the Examiner.

The Examiner also erred in alleging that the method of the pre-amendment claims 6-10 and the method of the pre-amendment claims 13-17 were **not usable together and had different effects**. The pre-amendment claim 6 was drawn to a method of adjusting the ferromagnetic characteristics of a "ferromagnetic ZnO-type compound." Since the specification discloses that the "ferromagnetic ZnO-type compound" of the invention has a single-crystalline structure (e.g. see page 5, lines 8-10), it was **implicit** that the "ferromagnetic ZnO-type compound" recited in the pre-

amendment claim 6 had a single-crystalline structure. The pre-amendment claim 13 differed from the pre-amendment claim 6 merely in that the pre-amendment claim 13 **explicitly** required the "ferromagentic ZnO-type compound" to have a single-crystalline structure. The fact that the crystalline structure of the ferromagnetic ZnO-type compound was not recited in the pre-amendment claims 6-10 does not necessarily mean that the ferromagnetic ZnO-type compound recited in pre-amendment claims 6-10 did not have a single crystalline structure. Thus, the pre-amendment claims 6-10 had the same scope as the pre-amendment claims 13-17. In order to be more explicit, claim 6 has been amended as shown above, in which claim 6 expressively states that the "ferromagentic ZnO-type compound" has a single-crystalline structure (claim 6 is made the same as the pre-amendment claim 13). Therefore, applicants submit that claims 6-10 and 13-17, as amended above, should be examined on the merits together.

Since the methods of the pre-amendment claims 6-10 and the pre-amendment 13-17 were all directed toward adjusting ferromagnetic characteristics of a **ferromagnetic** ZnO-type compound of a single-crystalline structure using the same steps, these methods can be used together and can have the same effect. Therefore, the pre-amendment claims 6-10 and the pre-amendment 13-17 were not patentably distinct. This is another reason why the pre-amendment claims 13-17 should not have been withdrawn from consideration.

Even if, for argument purposes, the Examiner were to treat the pre-amendment claim 6 as not implicitly requiring ferromagnetic ZnO-type compound having a single-crystalline structure, the pre-amendment claim 6 would then be broader than the pre-

amendment claim 13 in that the method of the pre-amendment claim 13 fell within the method of the pre-amendment claim 6. Under this scenario, with the method of the pre-amendment claim 13 being a subgenus of the method of the pre-amendment claim 6, the pre-amendment claims 6-10 and 13-17 should not be subjected to any restriction requirement even if the pre-amendment claims 6-10 and 13-17 were presented at the same time. This is because, by examining the pre-amendment claim 6 directed to a method of adjusting the ferromagnetic characteristics of a ferromagnetic ZnO-type compound, the Examiner already examined on the merits the pre-amendment claim 13 directed to a method of adjusting the ferromagnetic characteristics of a ferromagnetic ZnO-type compound having a single-crystalline structure. There should be no extra burden in examining the pre-amendment claims 13-17 along with the pre-amendment claims 6-10. After all, the Examiner had sent out an Office Action dated May 19, 2003 on the merits regarding the pre-amendment claims 6-10 and 13-17. This is yet another reason why the pre-amendment claims 6-10 and 13-17 should be examined on the merits together.

Claim Rejections -- 35 U.S.C. 112, First Paragraph

Claims 6-10 were rejected as non-enabled. Applicants respectfully traverse the rejection.

The rejection was based on the Examiner's allegation that the Declaration filed on November 21, 2003 "shows that only ZnO-type compound in the form of a single crystal doped with the claimed elements will have ferromagnetic characteristics." The

Examiner indicated that, since the pre-amendment claims 6-10 did not require the ZnO-type compound to be a single crystal, the person would know that the method of the pre-amendment claims 6-10 would not work because the ZnO-type compound cannot be made ferromagnetic through doping.

Applicants note that the Declaration filed on November 21, 2003 does not show, as alleged by the Examiner, "that only ZnO-type compound in the form of **a single crystal** doped with the claimed elements will have ferromagnetic characteristics" (emphasis added). Instead, the Declaration shows that the polycrystalline ZnO-type compound prepared according to the disclosure of Miyazaki et al are not ferromagnetic, while the ZnO-type compound of the invention is ferromagnetic. The pre-amendment claim 6 recites a "method for adjusting ferromagnetic characteristics of a **ferromagnetic** ZnO-type compound," so the method of the pre-amendment claims 6-10 applied to only **ferromagnetic** ZnO-type compound. Thus, the pre-amendment claims 6-10 did not purport to apply the method to non-ferromagnetic ZnO-type compound. Therefore, the Declaration should not raise any doubt on the fact that the pre-amendment claims 6-10 were enabled.

In addition, the specification and drawings present data showing the adjustment of the ferromagnetic characteristics by controlling the amount or combination of dopants in a ferromagnetic ZnO-type compound. Thus, the person skilled in the art would have known that the method of the pre-amendment claims 6-10 would work for its intended purposes based on the disclosures in the application.

Furthermore, applicants submit that the rejection is rendered moot by the amendment to claim 6, which now explicitly recites that the method is applied on a ferromagnetic ZnO-type compound having a single-crystalline structure.

Claim 7 was rejected as non-enabled because the Examiner asserted that the method of claim 7 would not work since the application does not disclose the necessary amount and composition of the dopants. Applicants respectfully disagree. Figures 3 and 4 present examples of the necessary amount and composition of the dopants. Figures 3 and 4 were plotted with dopant amount on the abscissa and the ferromagnetic characteristic on the ordinate. Thus, the relation of ferromagnetic characteristics to the dopant composition and the dopant amount is clearly shown and exemplified in the application. Accordingly, a person skilled in the art would be able to practice the method of claim 7 by determining the dopant composition and dopant amount needed to achieve a target value of the ferromagnetic characteristic.

Applicants respectfully request withdrawal of the non-enablement rejections.

Conclusion

In view of the amendment and the above reasoning, applicants submit that the application is in a condition for allowance. A Notice of Allowance is believed in order.

In the event that the filing of this paper is not deemed timely, applicants petition for an appropriate extension of time. Any petition fee for the extension of time and any other fees that may be required in relation to this paper can be charged to Deposit Account No. 01-2300, referencing Docket No. 107400-00016.

Respectfully submitted,

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